

COUNTY  
BOROUGH



OF  
ROCHDALE.



With the  
Medical Officer's Compliments.



ROCHDALE:

E. WRIGLEY & SONS LIMITED, PRINTERS, ACKER STREET.

1901.



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# ANNUAL REPORT

OF THE

*Medical Officer of Health,*

FOR THE

YEAR ENDED DECEMBER 31st, 1900.



ROCHDALE :

E. WRIGLEY & SONS LIMITED, PRINTERS, ACKER STREET.

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COUNTY BOROUGH OF ROCHDALE.

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HEALTH COMMITTEE.

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# ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1900.

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MR. CHAIRMAN AND GENTLEMEN,

I have great pleasure in presenting to you my Twenty-second Annual Report on the Health and Mortality of the Borough, together with a Statement of the Sanitary Work accomplished during the year ended December 31st, 1900.

In this Report I shall lay before you some suggestions for your consideration which, if carried out, will, I think, improve the sanitary condition and consequently the health of the Borough.

The total number of inhabited houses in Rochdale in 1900 was about 19,600, and the average number of persons inhabiting each house was 3·8. The census return for 1891 gave the number of inhabited houses as 17,602, and 4·1 occupants per house; for England and Wales the number was 5·3.

Inhabited  
Houses

Estimate of  
Population

The population, estimated to the middle of the year, was 76,350—males, 35,704; females, 40,646. This estimate I have arrived at by adding the *natural increase* of births over deaths to the estimated population for the preceding year. This being the method I have followed for many years, and found to be nearer the truth than any of the ordinary means usually adopted.

Births

The Births registered during the year numbered 1,799 (males, 900; females, 899), a decrease of 39 on the preceding year, and equal to an annual birth-rate of 23·6 of the population. The same rate last year was 24·49, and shows a decrease of 0·89 per 1,000 of the population. The birth-rate for the whole of England and Wales was 28·9 per 1,000, which is lower than any other year on record—the thirty-three largest towns, 29·4; sixty-seven next largest towns, 29·3; and the remainder of England and Wales, 28·1. Of the different districts of the Borough Wardleworth was the highest, viz., 25·4; and the lowest was Spotland Further, 18·8 (see Table I.).

Deaths

The total number of Deaths registered during the year was 1,519 (779 males and 740 females), equal to an annual death-rate of 19·9 per 1,000 of the estimated population. The total number of deaths was 29 less than the previous year. The lowest death-rate of the separate registration districts was in Spotland Further, viz., 16·5; and Wardleworth had the highest, viz., 22·6. The average death-rate for the last decade was 19·21 per 1,000 of the estimated population.

The following Table gives the annual death-rate per 1,000 of the different districts, and has been compiled (except Rochdale) from the Registrar-General's Reports:—

England and Wales...	Population	32 millions ..	18·3
„ Town Districts	„	22 „ ...	19·0
„ Country	„	10 „ ...	14·6
Thirty-three large towns	„	11½ „ ...	19·5
Sixty-seven next	„	3⅓ „ ...	18·1
Lancashire ..	„	4½ „ ...	21·1
<b>Rochdale</b> .....			<b>19·9</b>



Infantile  
Mortality

The number of deaths amongst infants under one year of age was 301, or 18 less than the preceding year. The infantile mortality, measured by the proportion of deaths under one year of age to registered births, was 167 per 1000, and the average for the last ten years 1890-1899 was 152. The rate for England and Wales was 154; thirty-three great towns 172; sixty-seven next 166; remainder of country 138; Lancashire 180.

Mortality at  
different ages

The number of deaths of children under five years of age was 452, or 27 less than the year previous. The percentage of deaths in children under five years of age to total deaths was 30, or 1 per cent. less than last year. Out of every 1,000 deaths registered during the year 295 died over the age of sixty, or 4 more than the preceding year, and the average for the last ten years was 270. The foregoing figures show that the decrease in death-rate was between the age of one and sixty, and the increase under one and above sixty years of age.

The following table shows the rates in the surrounding towns under the several headings as below, for the purpose of comparison. They are similar-sized towns, and employed chiefly in manufacturing.

	Birth-rate per 1,000.	Death-rate per 1,000.	Zymotic Death-rate per 1,000.	Rate of Infantile Mortality under 1 year to 1,000 Births.
ASHTON-UNDER-LYNE	27·4	... 20·1	... 1·9	... 182
BOLTON ...	... 29·0	... 19·5	... 2·39	... 170
BRADFORD ...	... 23·0	... 16·3	... 1·37	... 140
BURY ...	... 22·5	... 17·7	... 2·15	... 171
DARWEN ...	... 25·3	... 20·4	... 2·8	... 191
HALIFAX ...	... 22·8	... 18·1	... 1·2	... 135
HUDDERSFIELD	... 22·8	... 16·8	... 1·58	... 132
OLDHAM ...	... 24·1	... 19·5	... 2·4	... 172
PRESTON ...	... 28·7	... 22·2	... 4·36	... 236
<b>Rochdale</b> ...	... <b>23·6</b>	... <b>19·9</b>	... <b>1·39</b>	... <b>167</b>
ST. HELENS ...	... 35·0	... 21·6	... 3·04	... 188
STOCKPORT ...	... 27·8	... 21·4	... 2·6	... 203
WARRINGTON	... 36·7	... 19·4	... 2·5	... 162
WIGAN ...	... 34·5	... 21·9	... 2·63	.. 190

Death from  
Zymotic  
Diseases

The foregoing figures were furnished to me by the Medical Officer of each Borough.

The seven principal Zymotic Diseases caused 106 deaths, an increase of one on the previous year, but a decrease of 11 on the average of the preceding decade; equal to a death-rate of 1·39 per 1,000 of the population. This is most satisfactory, as you will see by the foregoing Table. The same rate for England and Wales was 2·0 per 1,000—the thirty-three large towns, 2·50; the sixty-seven next largest, 2·25; and the remainder of England and Wales, 1·57. Of the different districts of the Borough Castleton Further had the highest death-rate from these diseases, viz., 2·01, and Spotland Nearer the lowest, 0·81.

Scarlet Fever

114 cases of Scarlet Fever were notified at the Health Office, and of these 2 proved fatal. The cases notified were 97, and the deaths 7 less than the preceding year. 58 of the cases notified, or 51 per cent. were removed to the Hospital for treatment. This is the largest percentage of removals since Marland Hospital was established, and the lowest mortality per 1,000 of the population, ·03. The percentage of deaths to the cases notified was 1·75. The deaths occurred as follows:—1 in Castleton Further and 1 in Spotland Further. The deaths occurring amongst cases removed to the Hospital from within the Borough are included in this report.

Smallpox

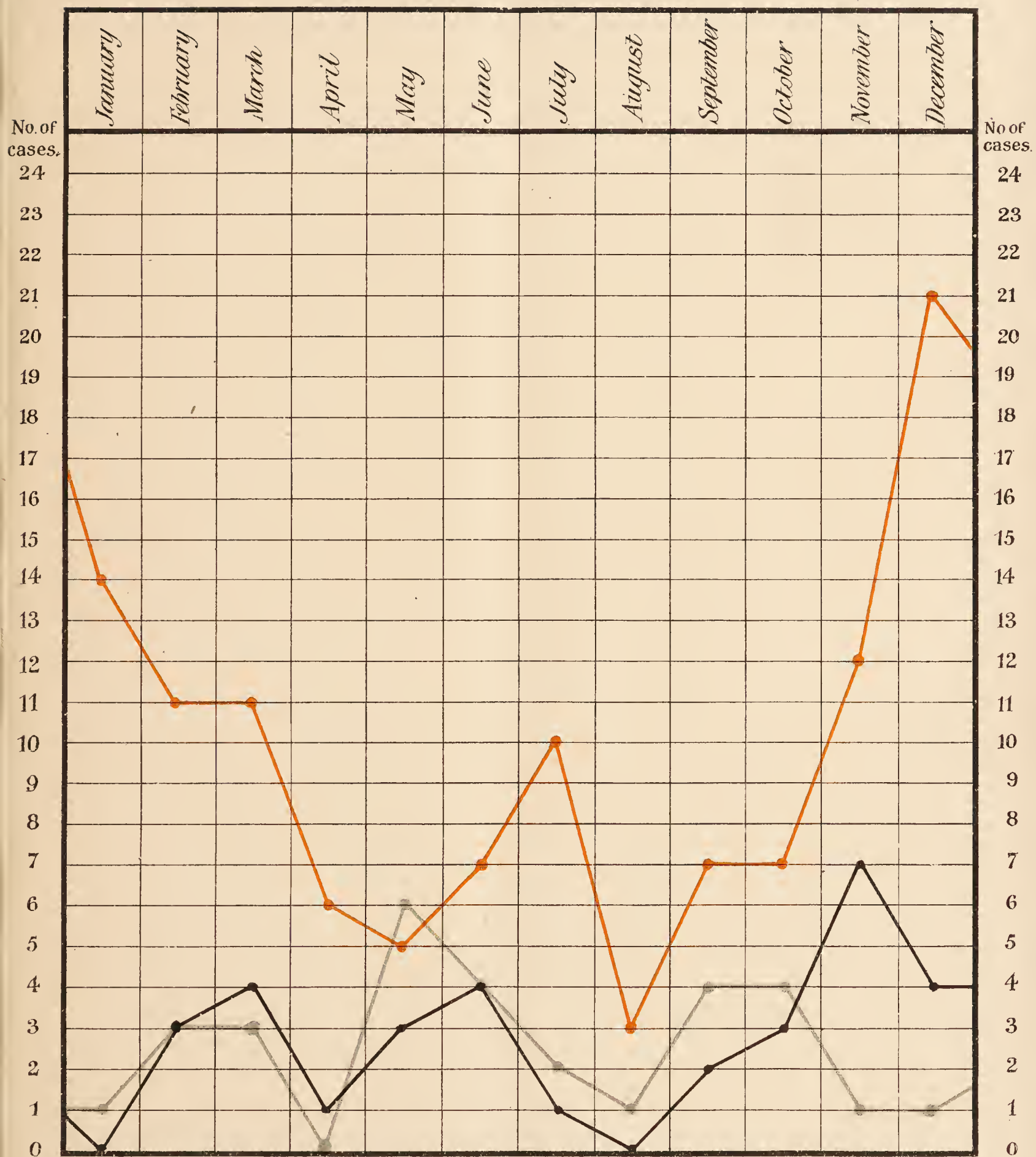
There have been 2 cases of Smallpox notified during the year, 1 each in June and December. Both these cases were removed to Marland Hospital with the greatest possible despatch. The rooms, bedding, carpets, clothing, etc., were all disinfected, and I am pleased to be able to report that no further cases have been notified. They both occurred in Castleton Nearer district, and both recovered.

Measles

There were 577 cases of Measles reported during the year, and of these 34 proved fatal, or 5 more than the average for the 10 preceding years (see last report). I have certified as to the prevalence of Measles and other



Chart shewing notifiable Infectious Diseases  
reported each month of 1900.



SCARLET FEVER.  
ENTERIC FEVER  
DIPHTHERIA

infectious diseases in the neighbourhood of two schools, which, when reported to the proper authority, the fees for the children compulsorily absent would be remitted. I did not feel justified in closing any of the schools.

#### Whooping Cough

Whooping Cough is credited with 34 deaths out of 163 cases reported at the Health Office, or 7·6 more than the average for the preceding decade. Of these 34 died—10 occurring in Castleton Nearer, 10 in Wardleworth, and 9 in Castleton Further. This disease is difficult of control, also of prevention, and its spread is due to (1) the extremely infectious nature of the disorder; (2) the absence of dread of the infection by parents; and (3) to their lack of means and generally the knowledge of the method of nursing patients suffering from this disease. I have had pamphlets sent to each house where a case of Whooping Cough occurred, dealing with the precautions necessary to prevent the spread and fatality of this disease. The notification of Whooping Cough and Measles is not compulsory, and the information I receive is tendered gratuitously and in a systematic manner, for which I am grateful.

#### Fever

Under the head of Fever are included *Typhus*, *Enteric*, *Simple*, and ill-defined forms of *Continued Fever*, and account for 3 deaths. This is a decrease of 6 on the preceding year. There were 30 notifications of Enteric Fever during the year, or 5 less than in the preceding year. The majority of these cases were distributed pretty evenly over the Borough, and the sources of infection were difficult of detection. A few cases occurred in a small area about Reform-street, Alma-street, and Kingsley-street. These streets are neither paved nor sewered, and following my usual custom I reported them to the Borough Surveyor who has always assisted me in remedying such defects.

#### Diarrhœa

26 deaths were due to Diarrhœa, being 9 less than the preceding year, and equal to a death-rate of 0·34 per 1,000. The Registrar General gives the same rate for England and Wales as 0·69—thirty-three great towns, 0·94;

sixty-seven other large towns, 0·81; and the remainder of the country, 0·48. On examining the above figures you will see that Rochdale is in a more favourable position than the rural districts of England.

There were notified at the Health Office 32 cases of Diphtheria, of which 7 died, being a case mortality of 19 per cent. Last year the number of cases notified was 29, of which 13 died, giving a case mortality of 45 per cent. This great reduction in case mortality is perhaps due to the Anti-Diphtheritic Serum treatment. I have made arrangements with Professor Delépine to examine specimens from these cases, and provided all doctors in the town with the apparatus necessary when requested by them.

Forty-two cases of Erysipelas were notified, of which 2 resulted in death: One in Castleton Nearer, and 1 in Wardleworth.

Nine cases of Puerperal Fever were notified, of which 3 died. One midwife was suspended for two months owing to the prevalence of Puerperal Fever among the cases on which she was in attendance.

Thirty-eight deaths were due directly to Influenza as compared with 60 in 1899.

Respiratory Diseases caused 447 deaths, of which 115 were due to Phthisis, and the remainder to the more acute lung affections; equal to an annual death-rate of 5·86. Of the deaths from the more acute lung affections 64 were of infants under the age of one year, or 19 per cent. of the total deaths from this cause; 40 were of children between the ages of one and five years, or 12 per cent., and 95 of persons over the age of sixty, or 28·6 per cent. The death-rate for respiratory diseases other than Phthisis was 4·35 per 1,000 as compared with 4·36 last year. The highest rate in any one district was for Wardleworth 6·08, and the lowest Spotland Further 3·25 per 1,000. On comparing the number of deaths from acute respiratory diseases with



those from influenza I find that when influenza was most prevalent the more acute lung affections were most fatal. There were 115 deaths from Phthisis, or 16 less than the preceding year, and equal to a death-rate of 1·51 per 1,000 of the estimated population, as against 1·74, 1·57, 1·65, 1·2, 1·9, in the five preceding years. The district which suffered most heavily was Castleton Nearer, 1·76, and the lowest Spotland Further, 0·05. These districts have almost the same death-rate from this cause as in the preceding year.

#### Uncertified Deaths

There were 8 deaths uncertified as to their cause either by a registered medical practitioner or by the Coroner. These amounted to 0·52 per cent. of the total deaths, while the same rate for England and Wales was 1·9 per cent.

#### Inquests

There were 106 inquests held by the Coroner during the year, forming 6·9 per cent. of the total deaths. The Registrar-General giving the same rate for England and Wales as 6·3.

#### Hospital

On January 1st, 1900, there were 18 cases in Marland Hospital. Scarlet Fever 17, and Enteric Fever 1. During the year there were admitted 120 fresh cases, of which 76 were Scarlet Fever, 21 Enteric Fever, 18 Smallpox, 4 Diphtheria, and 1 other disease. 16 cases were from Castleton, 25 Middleton, 3 Dearnley Workhouse, and 76 from the Borough. 8 deaths occurred during the year (4 from Scarlet Fever and 4 from Enteric Fever). On December 31st, there remained in the Hospital 16 cases; 15 of Scarlet Fever and 1 of Measles.

Many improvements have been made at the Hospital during the past year, viz.:—planting trees, generally improving the grounds, new and more modern windows, painting and whitewashing, and two wards refloored with hard wood. I would suggest the flooring of the east wing with hard wood, also the provision of new fixed baths, the old portable baths being nearly worn out. During the coming year a main sewer will be laid in Marland-road.

107 inspections have been made of the Offensive Trades. No new ones have been established during the year, and those already in existence were not complained of except in one instance, which on examination was found not to be a nuisance. One application was made to establish a gut-scraping business. A Sub-Committee was appointed to examine the place and refused the application.

Offensive  
Trades

During the year you have acquired fresh powers to compel the adoption of the water carriage system. I would here suggest that you adopt the clean water system in all possible cases in preference to the slop water, as the defects in the latter are so numerous that I have no doubt in the early future the slopwater system will become as dangerous to the public health as our present pail system.

Water Closets

A great deal of this work has been done during the year, but there is still room for improvement. I am glad to say that the Paving and Sewering Committee are taking steps for the improvement of these back passages. All back-yards should be flagged, but I fear that they have not had much attention except in new buildings.

Back Passages  
and Yards

I would suggest the adoption of regulations and bye-laws relating to the water-closets, all offensive trades, the manufacture of ice-cream, and the improvement of the slaughter-house bye-laws.

During the year 159 Observations, each of one hour's duration, were made of smoke issuing from factory chimneys, and reported to you. This resulted in letters being sent by the Town Clerk to six firms and their firemen, and notices being served on two. One firm was prosecuted during the year, and a fine of 10/6 and costs was imposed.

Smoke  
Observations

No Cellar Dwellings have been closed, but one Dwelling-house was condemned as unfit for human habitation.

Cellar  
Dwellings



Factory and  
Workshop Acts

During the year 197 visits were paid to Workshops and 135 to Bakehouses. Many defects were found and subsequently remedied.

Food and  
Drugs Acts

Under the Food and Drugs Act 199 samples of food stuffs were analysed, or 42 more than the preceding year, with the result that proceedings were taken in five cases, and seven other vendors were cautioned. One case for selling Margarine was not carried through, as the vendor fled to escape the penalty, consequently the summons was not served. In another case for Butter the case was dismissed, because the seller produced a warranty from the wholesale dealer, the latter being afterwards fined £5 and costs for issuing a false warranty. In six cases the vendors barely escaped prosecution.

Cowsheds and  
Dairies

128 visits were made to Cowsheds and Dairies. Many defects were found and notices served to remedy them. Several have had to be entirely reconstructed and redrained.

Sanitary  
Work

The Sanitary Work of the Borough has been carefully carried out under instructions. The nuisances dealt with by the Inspectors, and the number of premises visited, will show that a great deal of valuable work has been accomplished. 509 visits were paid to houses where cases of Zymotic disease existed; sanitary defects were reported on and remedied; printed instructions as to the measures necessary to check the spread of infection were distributed, and disinfectants were supplied. After recovery, death, or removal to Hospital, 138 rooms were thoroughly fumigated and cleansed.

Slaughter-  
houses

The Slaughter-houses were frequently visited, and their condition was found to be greatly improved as to cleanliness, whitewashing, &c.

Diseased  
Meat, &c.

The amount of meat and other food-stuffs which was seized or surrendered and destroyed on account of its being diseased or in an unsound condition, was as follows:—  
Beef, 900-lbs.; Cows Udders, 1,000-lbs.; Eggs, 250;

Bacon, 40-lbs.; Fish and Fruit, 4 parcels; Potted Meat, 75-lbs.; Pork, 600-lbs.; Mutton, 157-lbs. In one case a butcher was prosecuted for exposing for sale unsound meat; the case was dismissed.

In concluding my report, I must again thank my staff of officers for their valuable assistance, and you, Gentlemen, for your kindness and courtesy towards me.

I am, Gentlemen,

Yours obediently,

J. HENRY,

Medical Officer of Health.

Town Hall, Rochdale,

April 19th, 1901.

**R E P O R T**

OF THE

MEDICAL OFFICER OF HEALTH

ON

**Ptomaine Poisoning Cases**

**CAUSED BY EATING ICE CREAM.**



On Sunday, the 12th August, 1900, my attention was drawn to an outbreak of Diarrhœa. On Monday morning, with the Inspector and an assistant, I proceeded to investigate a number of cases, and found that many of the inhabitants in the district of Merefield, Freehold, and Sudden had been severely attacked with Diarrhœa and vomiting. We proceeded to investigate into the cause with the following results:—

The total number of cases visited was 146. The ages of the sufferers varied from 1 to 51 years. The water supply was the town's, and the milk supply was very varied, but in no case did any milkman supply a preponderance of the cases. The sanitary arrangements showed no great defects, and the food was the same as used every day, but the people affected all attributed their illness to Ice Cream supplied by one man.

The number of cases investigated was 146, and the number who had eaten Ice Cream was 141.

The cases nearly all commenced on the Sunday. The severity of the illness varied from slight sickness of the stomach, fainting, to severe vomiting, diarrhœa, dysentery, and death in one case, in some cases the temperature was very high, followed by extreme prostration. On enquiry where this cream was procured, I found that some was bought by about fifty people at the U.M.F.C. Brimrod Sunday School field, seventeen others at the field occupied by the Drake-street Baptist scholars; others purchased it in the street on the Saturday, and others at the stall in the market.

I proceeded to the house of this particular Ice Cream vendor, with the Inspector and assistant, and found that all the cream manufactured on the Friday and Saturday had been sold, and all the ingredients except a little sugar used up. The vessels when examined by me on the Monday contained Ice Cream in the process of manufacture before freezing. Two were situate within a yard of the pail closet and covered with a dry cloth, with the idea of excluding the dust. This cloth, to prevent contamination, should have been clean and moist. Two other tins were placed one on either side of a drain inlet, trapped, but still defective and rather offensive; the slopstone pipe that discharges on to this grid was also offensive. These tins were also covered with dry cloths, and, on examination, some smuts were found inside. The fine strainer used for straining the milk and corn flour after boiling was placed on the window sill, right over the drain inlet and slopstone pipe. Placed within about four inches was a dolly tub and wringing machine; in the dolly tub were babies' napkins, soiled with diarrhœal excreta. The other utensils used in the manufacture of this cream were not clean, but the man attributed that to being upset through the alarming reports.



On enquiry if there had been any illness recently in the house, the vendor told me that there had not, but, on further enquiries, I found that a baby had been suffering from diarrhoea since the previous Friday, and had not been attended by any doctor. I subsequently had all the utensils removed and thoroughly disinfected by boiling. The surface of the yard was composed of bricks set on edge in the earth. The slopstone, where the man evidently mixes his ingredient, was in an insanitary condition, in fact the premises, though much superior to others in the town, were in no way adapted for the manufacture of Ice Cream. I am of opinion that the milk, corn flour and sugar, having been previously boiled, would probably exclude these three articles from previous contamination, and that the contamination must have been introduced subsequent to the boiling process. The biscuits may also be excluded for the same reason. A great number had no biscuits, but ice cream alone. The glasses used for eating the ice out of may also be excluded for the following reasons: some had no glasses, others had it in the form of sandwiches, others had it in four separate places, viz., the stalls in each of the two fields, the market stall, and the streets of the town.

In my opinion the whole bulk of ice cream manufactured must have been contaminated, otherwise so many cases would not have occurred and supplied in so many different ways. Some that had taken the cream were not affected. It is, therefore, my opinion that the contamination must have been introduced into the whole body of cream after the boiling process and before the freezing. This was the time at which the cream was placed near to the closet and near to the drain for the purpose of cooling. I am also of opinion that the cause of the contamination was probably



- 1.—Infection from the diarrhœal motions ;
- 2.—Infection from the offensive drain ; or
- 3.—Infection from the offensive closet, afterwards introduced into the ice cream in the process of manufacture.

All of these are possible, but none of which we can be certain of. In my opinion the cause of the illness was Ptomaine poisoning. This is a poison which results from the bacterial decomposition of animal matter in which chemical compounds are formed, which are called putrefactive alkaloids, and known as Ptomaines or Toxines, some of which are highly poisonous and others not. They differ extraordinarily in their characters and physiological effects.

Yours obediently,

J. HENRY, M.D.,

MEDICAL OFFICER OF HEALTH.

August, 1900.





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# APPENDIX.

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**TABLE I.**  
*Yearly Return of Births and Deaths in the Borough of Rochdale and Registration Districts,*  
For the Year ended 31st December, 1900.

	ESTIMATED POPULATION.	Acreage.	Density per Acre.	BIRTHS.	DEATHS.				Rate per 1,000 of the Population.				
					Total.	From 7 principal Zymotic diseases	From Respiratory diseases	From Phthisis.	Births.	Deaths.	From 7 principal Zymotic diseases.	From Respiratory diseases.	From Phthisis.
THE BOROUGH ...	76,350	4,180	18·3	1,799	1,519	106	332	115	23·6	19·9	1·39	4·35	1·51
DISTRICTS.													
Castleton Nearer	18,712	493	38·0	436	392	29	72	33	23·3	20·9	1·55	3·84	1·76
Castleton Further	14,910	1,068	14·0	376	257	30	51	19	25·2	17·2	2·01	3·42	1·27
Spotland Nearer ...	11,180	751	14·9	239	225	9	45	16	21·4	20·1	0·81	4·03	1·43
Spotland Further	4,000	652	6·1	75	66	5	13	2	18·8	13·5	1·25	3·25	0·50
Wardleworth .....	20,230	766	26·4	514	458	27	123	32	25·4	22·6	1·33	6·08	1·58
Wuerdle & Wardle	6,868	245	28·0	143	115	6	27	12	20·8	16·7	0·87	3·93	1·75
Butterworth.....	450	205	2·2	16	6	0	1	1	35·6	13·3	0·00	2·22	2·22

TABLE II.

Deaths from Seven Principal Zymotic Diseases for 1900, and the Twenty-five previous Years.

	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	Death Rate per 1000 living.
Smallpox ...	25	1	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0·00
Measles ...	8	107	13	67	24	43	3	42	8	35	1	39	8	26	20	6	16	3	76	4	35	43	68	13	24	34	0·45
Scarlet Fever	111	45	28	107	65	42	29	31	20	15	9	18	8	19	2	18	8	2	11	29	45	24	7	3	9	2	0·03
Whoop'g C'gh	33	24	39	16	27	33	36	22	11	28	19	44	12	15	38	17	27	24	49	10	19	52	18	2	19	34	0·45
Fever ...	47	50	40	43	31	39	14	28	16	25	12	11	16	10	7	13	9	9	31	15	15	7	6	16	9	3	0·04
Diarrhoea ...	68	51	29	51	*25	56	20	17	26	27	15	12	25	27	25	10	14	8	29	19	25	18	27	34	35	26	0·34
Diphtheria ...	6	8	5	8	5	8	2	4	3	3	0	4	3	6	3	4	1	5	17	48	27	9	7	4	13	7	0·09
Totals ...	298	286	154	292	177	221	155	184	84	133	56	128	75	104	95	63	75	51	218	126	166	153	133	72	109	106	1·39

TABLE III.

Table shewing the Mortality from certain classes of Diseases, proportion to Population, and to 1000 Deaths.

	Total.	Deaths per 1,000 of Population.	Proportion of Deaths to 1,000 Deaths.
1. Seven principal Zymotic Diseases .....	106	1·39	70
2. Respiratory Diseases ( <i>other than Phthisis</i> ) .....	332	4·35	218
3. Tubercular Diseases .....	136	1·73	89
4. Wasting Diseases of Infants .....	103	1·35	68
5. Convulsive Diseases of Infants .....	72	0·94	47
6. Sudden Deaths among Children .....	22	0·29	15

- |   |  |
|---|--|
| No. 1. Includes Smallpox, Measles, Scarlet Fever, other Fevers, Diphtheria, Whooping Cough and Diarrhoea. | No. 4. Includes Marasmus. Atrophy, Debility, and Pre-mature Birth. |
| 2. " Bronchitis, Pneumonia, Asthma, Pleurisy, &c.   | 5. " Infantile Meningitis, Convulsions and Teething.               |
| 3. " Phthisis, Scrofula, Tabes Mesenterica, and Hydrocephalus.  | 6. Inquests and Uncertified Deaths amongst Children.               |



## TABLE IV.

*Table shewing the Annual Birth Rate, Rate of Mortality among Children under 1 year, under 5 years ; and in persons over 60 years, for the present and 27 previous years.*

Year.	Birth-Rate per 1,000 of Population.	Deaths in Children under 1 year to per- centage of Total Deaths.	Deaths in Children under 1 year to 1,000 Births.	Deaths in Children under 5 years to per- centage of Total Deaths.	Deaths in persons over 60 years to per- centage of Total Deaths.
1900	23·6	20	167	30	29
1899	24·5	21	173	31	29
1898	25·3	18	133	27	32
1897	25·6	21	139	35	26
1896	25·5	20	152	35	25
1895	23·9	19	175	33	27
1894	23·7	18	121	31	27
1893	24·8	20	164	35	26
1892	24·6	20	146	31	26
1891	25·6	18	151	31	27
1890	24·1	19	150	31	25
1889	24·3	20	145	33	25
1888	24·8	23	165	38	22
1887	25·0	18	132	32	27
1886	27·0	23	162	41	22
1885	26·9	19	121	31	27
1884	27·4	23	175	40	21
1883	28·0	20	141	34	20
1882	29·6	21	140	37	20
1881	30·2	21	138	36	21
1880	29·8	23	163	46	18
1879	31·4	23	148	43	19
1878	34·1	25	176	47	15
1877	34·6	23	137	40	19
1876	35·4	26	166	46	16
1875		22		40	19
1874		25		46	17
1873		25		40	21

The figures for the years 1877-8-9 are calculated on a higher estimate of the population than in 1880. The year 1876 has been estimated very nearly about the same as 1880.

## TABLE V.

*Summary of Sanitary Work accomplished during the  
year 1900.*

No. of Premises inspected	...	...	...	...	...	...	...	2172
„ Visits to Work in progress	...	...	...	...	...	...	...	890
„ „ Cases of Infectious Diseases	...	...	...	...	...	...	...	509
„ „ Owners and Occupiers <i>re</i> Nuisances	...	...	...	...	...	...	...	642
„ „ Cases of Ptomaine Poisoning from Ice Cream	...	...	...	...	...	...	...	141
„ „ Slaughter-houses	...	...	...	...	...	...	...	996
„ „ Cowsheds	...	...	...	...	...	...	...	128
„ „ Workshops	...	...	...	...	...	...	...	197
„ „ Caravans	...	...	...	...	...	...	...	96
„ „ Bakehouses	...	...	...	...	...	...	...	135
„ „ Canal Boats	...	...	...	...	...	...	...	54
„ „ Cellar Dwellings	...	...	...	...	...	...	...	79
„ „ Ice Cream Shops	...	...	...	...	...	...	...	24
No. of Applications for Lime-Brushes and Lime	...	...	...	...	...	...	...	1220
„ Notices served requiring abatement of Nuisances	...	...	...	...	...	...	...	223
„ Complaints received	...	...	...	...	...	...	...	210
„ Smoke Observations taken	...	...	...	...	...	...	...	159
„ Rooms disinfected	...	...	...	...	...	...	...	138
„ Workshops on Register	...	...	...	...	...	...	...	231
„ Entries in Report Book during 1900	...	...	...	...	...	...	...	550
„ Dwellinghouses condemned	...	...	...	...	...	...	...	1
„ Carcases seized or surrendered and destroyed	...	...	...	...	...	...	...	10
„ Cows' Udders destroyed	...	...	...	...	...	...	1,000 lbs.	
„ Eggs destroyed	...	...	...	...	...	...	...	250

NUISANCES DEALT WITH.	TOTAL.	DISTRICTS.						
		CN	CF	SN	SF	W	W <sub>U</sub>	B
Drains, wastepipes, &c., untrapped, or otherwise defective	271	83	49	54	25	39	12	9
Drains and wastepipes blocked up	235	98	61	24	2	41	9	...
Privies and ashplaces repaired, cleansed or limewashed	110	48	12	22	1	21	6	...
Closets and ashplaces altered to the pail or the W.C. system	26	...	25	...	1	...	...	...
Houses dirty or overcrowded	28	11	3	2	1	11	...	...
Accumulations of rubbish, manure, or filth, Pools of water	70	25	10	8	1	23	2	1
Want of drains	6	2	1	1	...	...	...	2
Bakehouses, Slaughter-houses, Shippens and Workshops requiring limewashing	96	30	26	10	4	11	14	1
Factory closets	4	2	1	...	1	...	...	...
Waste-water closets blocked-up or out of repair	10	4	6	...	...	...	...	...
Other nuisances dealt with under the "P. H. Act".....	86	26	20	18	6	10	1	5

TABLE VI.

*Number of Samples taken by the Inspector, under the  
Food and Drugs Acts, and results.*

Description.	No. Purchased.	Result.		Action taken.
		Genuine.	Adulterated.	
Scotch Whiskey ...	12	10	2	5/- and costs.
Irish Whiskey ...	13	9	4	5/- and costs, and one letter from Town Clerk.
Rum ... ..	4	4	...	
Gin ... ..	4	4	...	
New Milk ... ..	56	49	7	40/- and costs, and three letters from Town Clerk.
Skim Milk ... ..	10	9	1	
Bread ... ..	1	1	...	
Lard ... ..	1	1	...	
Butter ... ..	24	21	3	One Summons not served; Defendant fled. One Summons dismissed, but finally £5 and costs for false warranty.
Coffee ... ..	6	5	1	
Pepper ... ..	4	3	1	
Ginger ... ..	2	2	...	
Olive Oil ... ..	1	1	...	
Mustard ... ..	2	1	1	Letter from the Inspector.
Sweet Nitre ... ..	1	1	...	
Cocoa ... ..	1	...	1	
Soda Water ... ..	5	4	1	Letter from the Inspector.
Potass Water ... ..	3	2	1	Letter from the Inspector.
Lithia Water ... ..	1	1	...	
Tea ... ..	1	1	...	
Demerara Sugar ... ..	1	1	...	
Baking Powder ... ..	2	2	...	
Camphorated Oil ... ..	6	6	...	
Ice Cream ... ..	1	1	...	
Water ... ..	8	2	6	
			Polluted	
Tinned Tomatoes... ..	1	1	...	
Margarine ... ..	5	5	...	
Cheese ... ..	3	3	...	
Beers ... ..	20	20	...	
Total ... ..	199	170	29	Aggregate Fines— £7 10s. and costs.



TABLE VII.

A TABULATED SUMMARY OF METEOROLOGICAL NOTES FOR THE YEAR 1900.

Barometer reduced to 32° and Sea Level.										TEMPERATURE.										RAINFALL.				Mean degree of humidity, Saturation being 100.		Direction of Wind and No. of Days.									
MONTHS.	MEAN		HIGHEST.		LOWEST.		RANGE.	MEAN		HIGHEST.		LOWEST.		Mean of Max. Thermometer.	Mean of Min. Thermometer.	Lowest on Grass.		TOTAL.	Greatest Fall.		No. of Days which Rain fell.	N	NE	E	SE	S	SW	W	NW	Calm.					
	In.	Dte	In.	Dte	In.	Dte		OF	Dte	OF	Dte	In.	Date.																						
Jan. ....	29.902	30.458	11	29.336	28	1.122	38.5	49.2	23	29.5	11	42.5	34.5	Broken	7.180	1.890	6	28	2	6	1	2	...	7	9	4	...								
Feb. ....	29.532	29.992	8	28.983	17	1.009	34.4	56.0	23	14.0	8	40.3	29.4	D o.	5.096	1.600 <sup>s</sup>	10	21	...	10	2	2	1	3	4	3	3								
March ...	30.043	30.583	14	29.221	19	1.362	37.1	56.0	11	19.0	23	42.5	31.8	D o.	.757	.270 <sup>s</sup>	27	11	6	10	10	...	...	...	2	2	1								
April .....	29.922	30.543	19	29.201	4	1.342	45.8	71.0	21	28.7	2	53.3	38.4	D o.	3.136	.590	12	17	...	4	...	...	...	8	16	...	2								
May .....	29.856	30.338	30	29.162	16	1.176	49.6	63.0	26 & 29	34.7	13	56.4	42.5	D o.	1.750	.460	6	14	...	9	4	1	2	7	4	4	...								
June .....	29.851	30.347	1	29.497	25	.850	58.5	79.5	11	43.2	2 & 5	67.5	50.5	D o.	5.777	1.440	11	17	1	5	1	1	1	8	13	...	...								
July .....	29.883	30.251	8	29.512	1	.739	...	...	...	45.5	4	...	54.5	D o.	3.236	.845	27	14	1	3	1	1	...	7	14	4	...								
Aug. ....	29.922	30.383	29	29.260	3	1.123	59.3	74.5	13	44.5	26	67.7	51.1	D o.	6.931	1.570	6	17	1	7	4	4	...	6	7	1	1								
Sep. ....	30.080	30.542	12	29.422	27	1.120	54.0	75.0	16	39.0	25	59.0	47.6	D o.	1.744	.505	26	16	3	2	1	...	...	6	14	1	2								
Oct... ..	29.866	30.568	22	29.194	26	1.374	48.2	63.7	7	32.2	22	53.9	42.5	D o.	6.646	.950	28	27	2	2	1	1	...	10	9	6	...								
Nov. ....	29.617	30.406	19	29.192	15	1.214	42.4	51.7	5	32.5	24	46.5	34.2	D o.	4.300	.762	12	20	...	9	2	1	...	6	11	...	1								
Dec. ....	29.721	30.309	10	28.623	28	1.686	42.0	50.5	11	30.2	24	43.5	39.4	D o.	6.234	.780	27	21	...	2	2	...	...	13	11	2	1								
Whole yr.	29.855	30.583	14	28.623	28	1.960	42.5	...	...	14.0	8	...	41.4	D o.	52.837	1.890	Jan. 6	223	16	69	29	13	4	81	114	27	12								

These Observations are taken daily at 9 a.m.

Position of Barometer, 472 feet above mean Sea level.

TABLE VIII.

Year.	Total.			Rate per 1,000 of Population.		
	Births.	Deaths.	From 7 principal Zymotic Diseases.	Births.	Deaths.	Seven Zymotics.
1900	1,799	1,519	106	23·6	19·9	1·39
1899	1,838	1,548	104	24·5	20·6	1·38
1898	1,892	1,364	79	25·3	18·2	1·06
1897	1,884	1,232	133	25·6	16·7	1·80
1896	1,858	1,391	153	25·5	19·07	2·09
1895	1,735	1,557	166	23·9	21·42	2·28
1894	1,716	1,176	126	23·7	16·26	1·74
1893	1,792	1,453	218	24·8	20·09	3·01
1892	1,768	1,307	51	24·6	18·18	0·70
1891	1,833	1,527	75	25·6	21·4	1·05
1890	1,719	1,378	68	24·2	19·35	0·95
1889	1,794	1,289	95	25·3	18·2	1·34
1888	1,816	1,319	104	25·7	18·6	1·46
1887	1,819	1,329	75	25·9	18·9	1·07
1886	1,951	1,380	128	27·8	19·7	1·82
1885	1,924	1,194	56	27·6	17·1	0·80
1884	1,887	1,405	133	27·1	20·2	1·92
1883	1,938	1,342	84	28·0	19·4	1·21
1882	2,036	1,393	184	29·4	20·2	2·66
1881	2,079	1,371	155	30·2	19·90	2·20
1880	2,055	1,437	221	29·9	21·0	3·22
1879	2,261	1,445	177	33·2	21·2	2·59
1878	2,426	1,721	292	35·6	25·3	4·28
1877	2,426	1,426	154	35·9	21·0	2·27
1876	2,432	1,527	253	36·0	22·6	3·74
1875	...	1,619	283	...	24·0	4·20
1874	...	1,587	253	...	23·6	3·76
1873	...	1,365	118	...	20·2	1·77
1872	...	972	87	...	14·6	1·32

In the year 1872 the Borough was extended by the addition of about 20,000 inhabitants.



TABLE IX.

*Notifications of Infectious Diseases during 1900.*

MONTH.	TOTALS.	Small Pox.	Scarlet Fever.	Enteric Fever.	Puerperal Fever.	Diphtheria.	Erysipelas.
January ... ..	19	...	14	1	...	0	4
February ... ..	18	...	11	3	1	3	0
March ... ..	22	...	11	3	...	4	4
April ... ..	11	...	6	...	...	1	4
May ... ..	16	...	5	6	...	3	2
June ... ..	19	1	7	4	...	4	3
July ... ..	19	...	10	2	2	1	4
August ... ..	9	...	3	1	2	...	3
September ... ..	17	...	7	4	1	2	3
October ... ..	19	...	7	4	2	3	3
November ... ..	23	...	12	1	1	7	2
December ... ..	37	1	21	1	...	4	10
TOTALS ... ..	229	2	114	30	9	32	42







# TABLE XI.

Admissions to Hospital during each month of 1900.

1900.	Scarlet Fever.				Enteric Fever.				Small Pox.				Diphtheria.				Other Diseases.				Total Admissions.			
	M.	F.	Deaths.	Total.	M.	F.	Deaths.	Total.	M.	F.	Deaths.	Total.	M.	F.	Deaths.	Total.	M.	F.	Deaths.	Total.	M.	F.	Deaths.	Total.
January ...	1	10	...	11	1	3	...	4	...	...	...	...	...	...	...	...	...	...	...	...	2	13	...	15
February ...	1	2	2	3	...	...	...	...	...	...	...	...	...	...	...	...	1	2	2	...	1	2	2	3
March ...	3	3	...	6	...	3	...	3	...	...	...	...	...	...	...	...	3	6	...	...	3	6	...	9
April ...	4	3	...	7	1	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	5	5	...	10
May ...	1	3	...	4	1	1	3	2	1	5	...	6	...	...	...	...	...	...	...	...	3	9	3	12
June ...	2	2	1	4	5	1	1	6	5	4	...	9	...	...	...	...	...	...	...	...	12	7	2	19
July ...	6	3	...	9	...	1	...	1	1	1	...	2	1	1	...	2	...	...	...	...	8	6	...	14
August ...	1	2	...	3	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	4
September ...	...	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	3
October ...	2	3	...	5	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	2	4	...	6
November ...	5	4	...	9	...	...	...	...	...	...	...	...	2	...	...	2	...	...	...	...	7	4	...	11
December ...	4	8	1	12	...	...	...	...	1	...	...	1	...	...	...	...	1	...	...	...	6	8	1	14
Tot l for Year	30	46	4	76	9	12	4	21	8	10	...	18	3	1	...	4	1	...	...	1	51	69	8	120



TABLE XII.  
*Cases of Infectious Diseases Visited, and number of Visits paid to Infected Houses.*

DISEASES.	TOTAL.	DISTRICTS.						
		Castleton Nearer.	Castleton Further.	Spotland Nearer.	Spotland Further.	Wardle- worth.	Wuerdle and Wardle.	Butter- worth.
Smallpox .....	2	2	...	...	...	...	...	...
Scarlet Fever .....	114	27	28	28	8	20	3	...
Other Fevers (Puerperal, Enteric, &c.)...	39	8	7	7	3	6	8	...
Erysipelas .....	42	5	13	10	5	7	2	...
Diphtheria .....	32	4	6	4	7	6	3	2
Rooms Disinfected .....	138	25	38	33	12	25	5	...
Visits to Houses where Infectious Diseases existed .....	504	104	130	90	46	88	40	6

TABLE XIII.

*SCARLET FEVER.—Showing Admissions to Hospital, Deaths, and Percentage of Deaths, for the Year 1900.*

AGES.	MALES.		FEMALES.		TOTAL.		
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Death-rate per cent.
Under 5 ...	5	...	16	3	21	3	14·3
5—15 .....	17	...	15	1	32	1	3·1
15—25 ...	7	...	7	...	14	...	...
25—35 ...	3	...	3	...	6	...	...
35—45 ...	0	...	2	...	2	...	...
Over 45 ...	1	...	...	...	1	...	...
TOTAL ...	33	...	43	4	76	4	5·3

TABLE XIV.

*ENTERIC FEVER.—Showing Admissions to Hospital, Deaths and Percentage of Deaths for the year 1900.*

AGES.	MALES.		FEMALES.		TOTAL.		
	Ad- missions.	Deaths.	Ad- missions.	Deaths.	Ad- missions.	Deaths.	Death-rate per cent.
Under 5 ...	1	1	...	...	1	1	100
5—15 .....	1	...	5	1	6	1	16
15—25 ...	3	2	5	...	8	2	25
25—35 ...	2	...	...	...	2	...	...
35—45 ...	2	...	1	...	3	...	...
Over 45 ...	...	...	1	...	1	...	...
TOTAL ...	9	3	12	1	21	4	19·0

TABLE XV.

*SMALLPOX.—Showing Admissions to Hospital, Deaths, and Percentage of Deaths, for the Year 1900.*

SMALLPOX—VACCINATED.							
AGES.	MALES.		FEMALES.		TOTAL.		
	No. Admitted.	No. Died.	No. Admitted.	No. Died.	No. Admitted.	No. Died.	Death Rate Per cent.
Under 5 ...	...	...	...	...	...	...	...
5—15 .....	1	...	...	...	1	...	...
15—25 ...	...	...	1	...	1	...	...
25—35 ...	1	...	1	...	2	...	...
35—45 ...	...	...	1	...	1	...	...
Over 45 ...	1	...	...	...	1	...	...
Total .....	3	...	3	...	6	0	0
SMALLPOX—UNVACCINATED.							
AGES.	MALES.		FEMALES.		TOTAL.		
	No. Admitted.	No. Died.	No. Admitted.	No. Died.	No. Admitted.	No. Died.	Death Rate Per cent.
Under 5 ...	1	...	2	...	3	...	...
5—15 .....	4	...	5	...	9	...	...
15—25 ...	...	...	...	...	...	...	...
25—35 ...	...	...	...	...	...	...	...
35—45 ...	...	...	...	...	...	...	...
Over 45 ...	...	...	...	...	...	...	...
Total .....	5	...	7	...	12	0	0
Total Vac- cinated and Unvaccinat'd }	8	...	10	...	18	0	0